PATENT CLAIMS

1. An oscillating inductor having a symmetrical double-E core, which has two geometrically identical core windows, a cuboid center limb and two cuboid outer limbs, wherein said double-E core is designed such that a longitudinal cross sectional area of said center limb is greater than 90 mm^2, with a longitudinal cross section being regarded as a cross section which would separate said double-E core into two single E-cores, and said cross section being at right angles to said longitudinal cross section such that said double-E can be identified in said cross section, with said double-E core being located in a component volume of less than 26.5 mm × 26.5 mm × 15 mm (width × depth × height).

2. An oscillating inductor having a symmetrical double-EQ core, which has two geometrically identical core windows, a round center limb and two outer limbs which are curved in a concave shape on an inside thereof, wherein said double-EQ core is designed such that a longitudinal cross sectional area of said center limb is greater than 90 mm^2, with a longitudinal cross section being regarded as a cross section which would separate said double-EQ core into two single E-cores, and said cross section being at right angles to said longitudinal cross section such that said double-E can be identified in said cross section, with said double-EQ core being located in a component volume of less than
26.5 mm × 26.5 mm × 15 mm(width × depth × height).

3. An oscillating inductor having an E-I core, which has two geometrically identical core windows, wherein said E-I core is designed such that a longitudinal cross sectional area of a center limb thereof is greater than 90 mm^2, with a longitudinal cross section being regarded as a cross section which runs parallel to a E rear surface of the E-I core, and said cross section being at right angles to said longitudinal cross section such that an E can be identified in the cross section, said E-I core being located in a component volume of less than 26.5 mm × 26.5 mm × 15 mm (width × depth × height).

4. An oscillating inductor having a core with a center limb and two outer limbs, wherein said core is designed such that a longitudinal cross sectional area of said center limb is greater than 90 mm^2, with a longitudinal cross section being regarded as that cross section which runs parallel to a base

surface of said core on which said limbs are seated, and said cross section being at right angles to said longitudinal cross section such that a shape which is at least approximately similar to an E, formed from the said base surface as said E rear surface and said three limbs, can be identified in said cross section, with said core being located in a component volume of less than 26.5 mm × 26.5 mm × 15 mm(width × depth × height).

5. The oscillating inductor as claimed in claim 4, wherein said core has two geometrically identical core windows.

6. The oscillating inductor as claimed in claim 1, wherein said longitudinal cross sectional area of the center limb is greater than 100 mm^2,preferably greater than 110 mm^2, more preferably greater than 120 mm^2.

7. The oscillating inductor as claimed in claim 2, wherein said longitudinal cross sectional area of the center limb is greater than 100 mm^2,preferably greater than 110 mm^2, more preferably greater than 120 mm^2.

8. The oscillating inductor as claimed in claim 3, wherein said longitudinal cross sectional area of the center limb is greater than 100 mm^2, preferably greater than 110 mm^2, more preferably greater than 120 mm^2.

9. The oscillating inductor as claimed in claim 4, wherein said longitudinal cross sectional area of the center limb is greater than 100 mm^2,preferably greater than 110 mm^2, more preferably greater than 120 mm^2.

10. The oscillating inductor as claimed in claim 4, further comprising a double core, which geometrically comprises two cores of the stated type, whose limbs face one another.

11. The oscillating inductor as claimed in claim 4, further comprising a core of the stated type, over whose limbs a plate is arranged which runs essentially parallel to the said base surface.

12. The oscillating inductor as claimed in claim 4, wherein said center limb is rectangular or rectangular with rounded corners, or is elliptical or circular.

13. The oscillating inductor as claimed in claim 4, wherein said outer limbs

are shaped such that they model an external winding contour, which is defined by a shape of said center limb.

14. The oscillating inductor as claimed in claim 1, wherein a width of said center limb of said symmetrical double-E core is in a range from 6.0 mm to 8 mm.

15. The oscillating inductor as claimed in claim 2, wherein a width of said center limb of said symmetrical double-E core is in a range from 6.0 mm to 8 mm.

16. The oscillating inductor as claimed in claim 1, wherein the depth of said core is greater than or equal to 14.5 mm and the width of said core is less than 26.5 mm, preferably in the range from 24 mm to 26 mm.

17. The oscillating inductor as claimed in claim 2, wherein the depth of said core is greater than or equal to 14.5 mm and the width of said core is less than 26.5 mm, preferably in the range from 24 mm to 26 mm.

18. The oscillating inductor as claimed in claim 3, wherein the depth of said core is greater than or equal to 14.5 mm and the width of said core is less than 26.5 mm, preferably in the range from 24 mm to 26 mm.

19. The oscillating inductor as claimed in claim 4, wherein the depth of said core is greater than or equal to 14.5 mm and the width of said core is less than 26.5 mm, preferably in the range from 24 mm to 26 mm.

20. The oscillating inductor as claimed in claim 1, wherein said core is wound using solid wire, a ferrite core or composed of manganese-zinc power ferrite.

21. The oscillating inductor as claimed in claim 1, wherein each core is mounted on a board such that one of broad faces thereof rests flat on said board.